U.S. DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL WEATHER SERVICE
Silver Spring, Md. 20910

MEMORANDUM FOR: All NWS Regional Headquarters, Regional Maintenance Specialists, Electronic Systems Analysts, and Electronics Technicians [Engineering Handbook (EHB)-13, Series II distribution]

FROM: W/OPS1 - John McNulty

SUBJECT: Transmittal Memorandum for EHB-13, Series II, Issuance 01-05

1. Material Transmitted:

Advanced Weather Interactive Processing System (AWIPS), section 3.3, AWIPS Software Patch Modification Note 17, New "routerShefEncoder" 5.0 executable.

2. Summary:

AWIPS Software Patch Modification Note 17, provides installation instructions for a software patch that will correct problems identified with the Build 5.0 WWA software. File this note in EHB-13, Series II, section 3.3.

3. Effect on Other Instructions:

None.

AWIPS SOFTWARE PATCH MODIFICATION NOTE 17 (for Electronic Systems Analysts)
Maintenance, Logistics, & Acquisition Division
W/OST: CD, MH
W/OPS1: FJZ

SUBJECT	:	New “routerShefEncoder” 5.0 Executable
PURPOSE	:	Correct problems identified with AWIPS Build 5.0 LDAD SHEF products.
PATCH NUMBER	:	Patch number: P50_SEC_A1000107
AUTHORIZATION	:	The authority for this patch modification note is Request for Change NWS 672
AFFECTED SITES	:	All Build 5.0 WFOs and other sites that use “routerShefEncoder” to generate SHEF encoded products.
VERIFICATION STATEMENT	:	The patch and installation procedures were tested and verified at National Weather Service Headquarters, Silver Spring, MD (NMTW), and at Wilmington, OH (ILN).
REINSTALLATION REQUIREMENTS	:	Not required.
INSTALLATION TIME	:	Approximately 5 - 10 minutes
SECURITY LEVEL	:	root
TECHNICAL SUPPORT	:	For questions or problems regarding these installation instructions or installing this patch, please contact the AWIPS Site Support Team at 301-713-0920.

BACKGROUND

Time zones specified in the “LDAD *Station.txt” configuration files may appear, for example, as EST5EDT, GMT, or UTC. In Build 5.0, this time zone field is erroneously inserted into the “tz” field of all SHEF records by the LDAD SHEF Encoder. This illegal format causes the SHEF Decoder to reject all LDAD-generated SHEF records, rendering it unavailable to certain hydrologic applications. This patch will repair the problem and stamp the correct time zones on all LDAD generated SHEF records.

NOTE: Sites must install this patch as soon as possible after upgrading to Build 5.0.

IMPORTANT

The "routerShefEncoder" executable for P50_SEC_A1000107 is incompatible with AWIPS R4.3. Do **NOT** attempt to install this patch unless Build 5.0 has been installed.

PROCEDURE

A. Patch Installation Procedure

The patch file ("P50_SEC_A100107.tar.Z") must be downloaded from the NOAA1 server and unbundled to extract the installation scripts and new executables. The installation script will perform the following functions:

- Original executable will be backed up as "/awips/fxa/bin/routerShefEncoder.old" on ds1.
- The patch log ("/awips/PatchLog") on ds1 will be automatically updated.

1. At a workstation, open a telnet window, log in as **awipsusr**, and rlogin to the ds1 server as **root** by typing:

   `rlogin ds1 -l root`

2. Change to the "/data/fxa/workFiles" directory by entering the command:

   `cd /data/fxa/workFiles`

4. Create the "shefEncoder" directory by entering the command:

   `mkdir shefEncoder`

5. Change the "shefEncoder" directory permission by entering the command:

   `chmod 777 shefEncoder`

6. Change to the "shefEncoder" directory by entering the command:

   `cd shefEncoder`

7. Connect to the NOAA1 ftp server by typing:.

   `ftp 165.92.25.15`

8. Once connected, login as **ftp** user and enter the password **4Awips!**

9. Get the "P50_SEC_A100107.tar.Z" file by typing:

```
binary
cd /tmp
get P50_SEC_A100107.tar.Z
quit
```

10. Unbundle the "P50_SEC_A100107.tar.Z" file to obtain two script files ("install_routerShefEncoder50.sh" and "RC_P50_SEC_A100107.sh") and one executable ("routerShefEncoder"). Type:

```
uncompress P50_SEC_A100107.tar.Z
tar xvf P50_SEC_A100107.tar
```

11. Stop the LDAD processes by typing:

```
su - ldad
stopLDAD.sh
exit
```

12. Install the new routerShefEncoder software on ds1, and update the patch log file ("/awips/PatchLog") by typing: (**Note:** file "PatchID.50.107" contains the patch ID and is required to update the PatchLog file).

```
./RC_P50_SEC_A100107.sh -i PatchID.50.107 install_routerShefEncoder50.sh
```

13. Respond to the following questions as indicated:

    a. You can view additional entries in patch log. Would you like to do this? [y/n]
    Action: To proceed, please enter: **n** and a carriage return.

    b. Shall we proceed with the update of your files? [y/n]
    Action: To proceed, please enter: **y** and a carriage return.

14. After the installation script ("install_routerShefEncoder50.sh") is complete, answer the following questions:

    a. Do you wish to proceed with the patch log update? [y/n]
    Action: To proceed, please enter: **y** and a carriage return.

    b. Please enter your name [Example: John Doe]:
    Action: enter your name.

c. Please enter your telephone number (with area code and ext):
Action: enter your phone number.

d. Do you wish to update patch log with this line? [y/n]
Action: To complete the patch log update, enter: **y** and a carriage return.

15. Push the patched version of the "routerShefEncoder" file to ds2 by typing:

```
rcp -p ds1:/awips/fxa/bin/routerShefEncoder ds2:/awips/fxa/bin/routerShefEncoder
```

16. Re-start the LDAD processes by typing:

```
su - ldad
startLDAD.csh
exit
```

17. Delete the tar file and install script by typing:

```
rm  P50_SEC_A100107.tar
rm install_routerShefEncoder50.sh
```

NOTE: Do not delete the "RC_P50_SEC_A100107.sh" script. It may be required in part B.

18. Exit the root login and close the telnet window by typing:

```
exit
exit
```

19. Proceed to part C to verify if the patch installed correctly.

This completes the patch installation procedure.

B. Patch uninstall procedure

To uninstall the patch and replace it with the original executable(s), perform the following procedure.

1. Open a telnet window and log in to ds1 as **root** by typing:

```
rlogin ds1 -l root
```

2. Stop the LDAD processes by typing:

```
su - ldad
stopLDAD.sh
exit
```

3. To remove the new version of "routerShefEncoder" from ds1 type:

```
cd /awips/fxa/bin
mv ./routerShefEncoder.old ./routerShefEncoder
chown fxa:fxalpha ./routerShefEncoder
chmod 555 ./routerShefEncoder
rm routerShefEncoder.new
```

4. Restart the LDAD processes by typing:

```
su - ldad
startLDAD.csh
exit
```

5. Push the original version of "routerShefEncoder" to ds2 by typing:

```
rcp -p ds1:/awips/fxa/bin/routerShefEncoder  ds2:/awips/fxa/bin/routerShefEncoder
```

6. Perform this step only after the entire patch has been removed (step 3). Type:

```
cd /data/fxa/workFiles/shefEncoder
./RC_P50_SEC_A100107.sh -r PatchID.50.107
```

7. Answer the following questions as indicated:

   a. Do you wish to continue? [y/n]
   Action: To proceed, please enter: **y** and a carriage return.

   b. You can view additional entries in the patch log. Would you like to do this? [y/n]
   Action: To proceed, please enter: **n** and a carriage return.

   c. Do you wish to proceed with the patch log update? [y/n]
   Action: To proceed, please enter: **y** and a carriage return.

   d. Please enter your name [Example: John Doe]:
   Action: enter your name.

   e. Please enter your telephone number (with area code and ext):
   Action: enter your phone number.

f. Do you wish to update patch log with this line? [y/n]
Action: To complete the patch log update, enter: **y** and a carriage return.

8. Remove the remaining patch files by typing:

```
cd /data/fxa/workFiles
rm -rf shefEncoder
```

9. Exit the root login and close the telnet window by entering these commands:

```
exit
exit
```

This completes the patch uninstallation procedure.

C. Patch Testing Procedure

After performing the patch installation procedure in part A, perform the following steps to verify if the patch installed correctly.

1. Send a LARC data collection request from a workstation using the LDAD Scheduler GUI.

2. Ensure the data is collected successfully by checking the "co.log" file on LS1.

3. Verify the data is coming into LDAD and over to the DS into the "/data/fxa/LDAD/decoded" directory.

4. Ensure a SHEF encoded product is created successfully by checking "routerShefEncoder" log message.

5. Verify that the SHEF decoded product is created successfully by checking the /awips/hydroapps/shefdecode/logs/product directory. LARC products acquired from LDAD will have a file name of "KNWSRRZLDA.yymm.hhnnss," where yy = two digit year, mm = month, hh = hour, nn = minutes, and ss = seconds.

This completes the patch testing procedure.

REPORTING MODIFICATION

Report the completed modification on a WS Form A-26, Maintenance Record according to instructions in Engineering Handbook 4 (EHB-4), Engineering Management Reporting System (EMRS), Part 2, and appendix I. A sample A-26 form is attached. As an additional guide, use the information in the table below.

Block #	Block Type	Information
5	Description	Perform modification I.A.W. AWIPS Software Patch Modification Note 17
7	Equipment Code	AWIPS
8	Serial Number	001
15	Comments	Upgrade System Software with patch P50_SEC_A1000107
17a	Mod. No.	SP17

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ATTACHMENT A

ENGINEERING MANAGEMENT REPORTING SYSTEM
MAINTENANCE RECORD

Document Number: **G 49978**

General Information	1. Open Date	Time	2. Initials	3. Response Priority (check one)	4. Close Date	Time
	03/ 10 / 01	**0900**	**DKR**	○ Immediate ○ Low ○ Routine ☒ Not Applicable	**03 / 10 / 01**	**0920**

5. Description: **PERFORM MODIFICATION IAW AWIPS SOFTWARE PATCH MODIFICATION NOTE 17**

Equipment Information	6. Station ID	7. Equipment Code	8. Serial Number	9. TM	10. AT	11. How Mal.
	BTV	**AWIPS**	**001**	**M**	**M**	**999**

12. ***EQUIPMENT OPERATIONAL STATUS TIMES***	a. **Fully Operational**	b. Logistics Delay	**Partly Operational** c. All Other	d. Logistics Delay	**Not Operational** e. All Other

13. *Parts Failure Information*

Block #	a. ASN	b. NSN	c. TM	d. AT	e. How Mal.	f. Qty.	g. Maint. Hrs.
1							
2							
3							
4							
5							

14. *Work Load Information*

Type	Staff Hrs.
a. Routine	
b. Non-routine	
c. Travel	
d. Misc.	**0:20**
e. Overtime	

Miscellaneous Information	15. Maintenance Comments	16. Initials
	UPGRADED SYSTEM SOFTWARE WITH AWIPS SOFTWARE PATCH NUMBER P50_SEC_A1000107	**DKR**

17. ***SPECIAL PURPOSE REPORTING***	a. Mod. No.	b. Mod./Act./Deact.Dat	c.	d.	e.
	SP17	**03/10/01**			

18. ***CONFIGURATION MGMT. REPORTING*** *(use as directed)*	ASN	Vendor Part Number (New Part)	Serial Number (Old Part)	Serial Number (New Part)

Sample